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Judgments of interpersonal warmth predict class-based differences in political candidate support

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JUDGMENTS OF INTERPERSONAL WARMTH PREDICT CLASS DIFFERENCES IN POLITICAL CANDIDATE SUPPORT

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The present research examines how warmth communications shape class-based patterns of political candidate support. Drawing on theory and evidence that lower-class individuals are more attuned to others, we predicted that, relative to upper-class individuals, they will modulate their trust and support in response to communications of warmth generated by and about political figures. In Experiment 1, lower-class compared to upper-class participants reported *less* trust and support for a political candidate who communicated his warmth in a campaign video, while no class differences emerged when he communicated competence or hostility to an opponent instead. In Experiment 2, lower-class compared to upper-class participants reported *greater* trust and support for a political figure whose warmth was communicated by a lower-class member, but no class difference emerged when the same communication was by an upper-class member. Implications for eliciting trust through warmth communication in cross-class interactions are discussed.

Keywords: social class, socioeconomic status, person perception

The inequality of political participation has been longstanding: individuals with lower income, lower education, and lower occupational status have been less likely to vote than their counterparts higher on those indicators (Gelman, 2009; Krosnick, 1991; Uslaner & Brown, 2003, Verba, Schlozman, & Brady, 1995). Reasons such as the lack of resources (e.g., time, money, and skills) to engage in politi-

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cal activities (Brady et al., 1995), structural barriers to voting (e.g., denying rights of convicted felons, who are disproportionately from lower-class backgrounds, to vote), and feelings of lack of efficacy in influencing political outcomes (Kraus, Anderson, & Callaghan, 2015) among lower-class individuals contribute to this trend. Feelings of having little influence on the political process, in particular, may be heightened by their general lack of trust in others (Elgar, 2010; Pew Social Trends Staff, 2007), especially in political actors who are seen primarily as high-status elites and unlikely to serve lower-class individuals' needs. With distrust toward the U.S. government reaching a historic high (Pew Research, 2015), political participation among lower-class individuals may be dampened further, exacerbating existing social class disparities as the elected government and their policies become less likely to represent the interests of those who are economically disadvantaged (Lijphart, 1997). As such, gaining the trust and support of lower-class individuals of political actors appears to be one important approach to increase their political participation and is the primary focus of this research.

Two major goals guide the current investigation: First, we sought to understand how lower-class individuals infer trust relative to their upper-class counterparts. Second, we sought to examine the effectiveness of different types of persuasive communications about political actors in eliciting lower-class individuals' trust and support. Drawing on the social cognitive theory of social class (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012), we suggest that in response to communications about the interpersonal warmth of political figures, lower-class and upper-class individuals will differ in how much they would trust the warmth communicated about the figure, as well as how much they would support the figure. We derived two predictions based on this idea: First, when the warmth of a political figure is communicated personally, we predicted that lower-class individuals are less likely than upper-class individuals to trust and support the figure. Second, when the warmth of a political figure is communicated by others, we predicted an opposite pattern that lower-class individuals are more likely than upper-class individuals to trust and support the political figure, but only when the source is a lower-class member and not an upper-class member. We tested these predictions across two experiments by exposing people of differing social class backgrounds to different types of warm messages about a political figure and then assessed their effectiveness in eliciting their trust and support for the figure.

SOCIAL CLASS, SOLIPSISM, AND CONTEXTUALISM: A SOCIAL COGNITIVE THEORY OF SOCIAL CLASS

Decades of research across the social and economic sciences indicate that the social groups an individual belongs to—their gender, race, or even the team they root for—shape a variety of social cognitive and affective processes (e.g., Cikara & Van Bavel, 2014; Tajfel & Turner, 1979; Yudkin, Rothmund, Twardawski, Thalla, & Van Bavel, 2016). Much of this research indicates that group identity plays a significant role in this process by elevating specific behaviors that bring individuals closer

to other in-group members (De Dreu et al., 2016; Destin, Rheinschmidt-Same, & Richeson, 2017; Owuamalam, Rubin, & Spears, 2016). In addition to these group-identity relevant processes, groups share environments and experiences that shape behavior through basic social cognition. In this research, we extend the investigation to how the shared environments and experiences of social class shape the social cognitive tendencies of upper- and lower-class individuals in perceiving and judging others, particularly in the political domain.

An individual's social class can be construed in two ways (Adler, Epel, Castellazzo, & Ickovics, 2000; Kraus et al., 2012; Kraus, Tan, & Tannenbaum, 2013). First, social class can be construed as the objective experience of economic standing based on the amount of material resources one possesses, assessed through some combination of self-reported key indicators of income (e.g., Drentea. 2000), educational attainment (e.g., Snibbe & Markus, 2005; Stephens, Markus, & Townsend, 2007), and occupation status (Oakes & Rossi, 2003). Social class can also be construed via one's subjective judgments of their own rank in comparison to others, such as an interaction partner (Kraus, Horberg, Goetz, & Keltner, 2011), a social group or the entire social class hierarchy, on the key indicators of economic standing (Adler et al., 2000; Kraus et al., 2013).

While both objective reports and subjective judgments of social class work in concert to shape individuals' experience of their social class identity and how they perceive their social environment, both assessments tend to be moderately correlated (Kraus, Piff, & Keltner, 2009; Adler et al., 2000), and exert independent effects on various outcomes. For instance, subjective social class tends to predict health outcomes independently and more strongly than objective social class (e.g., Idler & Benyamini, 1997; Singh-Manoux, Marmot, & Adler, 2005). In other work using nationally representative samples, subjective social class was found to predict the well-being of American participants more strongly than Japanese participants, while the opposite was found with objective social class (Curhan et al., 2014). In accounting for these independent influences, it has been argued that subjective social class is a broader conceptualization of social class that includes objective assessments, as well as more qualitative and psychological perceptions of relative deprivation and financial security (Singh-Manoux et al., 2005; Tan, Kraus, & Adler, in prep). In other words, the objective and subjective social class indices capture different aspects of the social class identity and experience that can uniquely influence outcomes.

The social cognitive theory of social class is one empirical framework that predicts ways in which individuals of different social class backgrounds think about and interact with their social world (Kraus et al., 2012). One key prediction from this theory that is central to the present investigation is that lower-class individuals, due to their lack of resources, tend to establish connection and interdependence to others (e.g., relationship partners, important social groups, and communities) by adopting communal self-concepts and communal relationship strategies that prioritize attending to the needs of others unconditionally. In contrast, upper-class

individuals, who have more material resources to be self-reliant, prefer to establish individuality and independence from others, thereby adopting more agentic self-concepts and exchange relationship strategies that prioritize achieving equal or even net benefits to fulfill their personal needs (Kraus et al., 2012).

In line with this key prediction, several studies have shown that lower-class individuals tend to adopt identities, behaviors, and goals that are more relational and communal than upper-class individuals (Stephens, Markus, & Fryberg, 2012). For instance, lower-class participants reported greater enjoyment when they made choices that helped them to blend in and connect socially (Stephens, Markus, & Townsend, 2007), and preferred gifts that were chosen by others than by themselves (Stephens, Fryberg, & Markus, 2010). Another study also found social class differences among students in their reported motives for attending college—lower-class students cited more interdependent reasons for attending college, such as to help their families or to give back to their communities, whereas upper-class students cited more independent reasons, such as to pave their own pathways or to explore their own interests (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). Aligning with these motives, lower-class individuals compared to upper-class individuals were also more likely to donate to charity when the donation appeals emphasized communion (i.e., pursuing shared goals) rather than agency (i.e., pursuing personal goals; Whillans, Caruso, & Dunn, 2017). As well, when faced with threats and uncertainty in their environment, lower-class individuals tend to increase connection with their community and engage more in community building, while upper-class individuals prefer to turn to their own wealth and financial gains over community membership (Piff, Stancato, Martinez, Kraus, & Keltner, 2012).

Other lines of work have also shown that lower-class individuals strengthen their interdependence by being more attuned to the needs of others. In one study, lower-class individuals were more accurate at judging the emotions of others, across standard faces showing various emotions, as well as the emotional expressions of an interaction partner (Kraus, Côté, & Keltner, 2010). Relatedly, lower-class individuals, relative to their upper-class counterparts, showed greater engagement in dyadic social interactions with others (Kraus & Keltner, 2009), and responded more to the suffering of others (Piff, Kraus, Côté, Cheng, & Keltner, 2010; Stellar, Manzo, Kraus, & Keltner, 2012). A recent study also showed that lower-class individuals were more likely to engage in prosocial behavior in private contexts than public contexts (Kraus & Callaghan, 2016). They reasoned that as prosocial behaviors in private contexts are driven by the desire to respond to the needs of others (Batson, Duncan, Akerman, Buckley, & Birch, 1981; Goetz, Keltner, & Simon-Thomas, 2010; Schaller & Cialdini, 1988), these behaviors are more aligned with lower-class individuals' motivations than behaviors in public contexts, which are more concerned with maintaining one's reputation (Flynn, Reagans, Amantullah, & Ames, 2006; Rand & Nowak, 2013; Sperber & Baumard, 2012).

SOCIAL CLASS, INTERPERSONAL TRUST, AND PERCEPTIONS OF WARMTH

The above evidence linking lower-class individuals to heightened interdependence and attunement to the emotions and needs of others relative to upper-class individuals suggests that in perceiving and judging others, lower-class individuals are likely to be fundamentally more concerned and cautious about people's intentions toward them. Consistent with this idea, evidence shows that compared with upper-class individuals, lower-class individuals are generally less trusting of others (Elgar, 2010; Pew Social Trends Staff, 2007). One proposed reason is that as lower-class individuals need to rely on others to contend with their lack of resources (Kraus et al., 2012), investing in unreliable relationships can be very costly for them (Fiske, Moya, Russell, & Bearns, 2012). As such, being aware and vigilant of the intentions of others prior to building a relationship with them is a safe strategy that ensures that the people they eventually form relationships with can be counted on. Nonetheless, some evidence also suggest that lower-class individuals tend to show greater trust toward those related to them (Fiske et al., 2012), indicating that their vigilant strategy is more likely to be applied toward out-group than in-group members.

Therefore, in judging the reliability and trustworthiness of others, we expect that relative to upper-class individuals, lower-class individuals are more likely to pay closer attention to information about a person's basic intentions toward others, or *interpersonal warmth*. Our focus on interpersonal warmth is based on the Stereotype Content Model (SCM; Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, Glick, & Xu, 2002), an intergroup account of the broader Dual Perspective Model of Agency and Communion (DPM-AC) in basic person perception (Abele & Wojciszke, 2014; Wojciszke, 2005; Wojciszke, Baryla, Parzuchowski, Szymkow, & Abele, 2011). Similar to the DPM-AC, the SCM posits two dimensions that underlie people's primary judgments of others: *Warmth*, which maps onto the communal content in the DPM-AC, refers to a person's perceived intention to help or harm others. *Competence*, which maps onto the agentic content in the DPM-AC, refers to a person's perceived ability to carry out their helpful or harmful intent (Cuddy et al., 2008; Fiske et al., 2002). The model also posits that traits referring to perceived intent, such as trustworthiness, sincerity, and morality, are often inferred from warmth judgments (Abele & Wojciszke, 2014; Fiske, Cuddy, & Glick, 2007), whereas traits referring to perceived ability, such as intelligence, skill, and ability, are often inferred from competence judgments.

Studies have also found that people's judgments of others on the warmth and competence dimensions are pervasive, rapid, and have behavioral consequences (Cuddy et al., 2008; Fiske et al., 2002). For instance, people are able to judge warmth and competence rapidly and reliably from faces that are briefly exposed to them (Willis & Todorov, 2006). Judgments along these dimensions also result in group stereotypes. For example, the poor and homeless are perceived as low in both warmth and competence, the middle class are perceived as high in both warmth and competence, the elderly and disabled are perceived as warm but in-

competent, while the rich are perceived as competent but not warm (Cuddy, Fiske, & Glick, 2007; Fiske et al., 2002). As a consequence, active or passive harm are often elicited toward groups perceived as low in competence, whereas active or passive help are often elicited toward groups perceived as high in warmth (Cuddy et al., 2007).

Although we proposed that lower-class individuals are more likely than upper-class individuals to pay closer attention to other's warmth to judge if someone is reliable, we assert that this does not necessarily mean they will respond favorably to any warmth signals. Instead, we suggest that their general distrust toward others would make them more cautious about people's demonstrations of warmth, motivating them to consider the nature of the apparent warmth—whether it is authentic or disingenuous. To determine the authenticity of warmth signals, we posit that one potential cue that lower-class individuals might rely on is the source of the warmth communication, specifically, who the person communicating the warm message is.

AUTHENTICITY OF WARMTH SIGNALING IN POLITICAL COMMUNICATION

Political speech has a rich social class history in that it often requires political actors, who primarily represent elite sectors of society (e.g., Kraus & Callaghan, 2014), to communicate with the broader masses—Harvard trained lawyers shaking hands with steelworkers. These cross-class interactions are fraught with opportunities for social disengagement and misunderstanding due to their intergroup nature, and yet they occur every election cycle. As such, signaling warmth in politics is no easy task, and as alluded to previously, the challenge is likely to be compounded by lower-class individuals' greater distrust toward others than their upper-class counterparts (Elgar, 2010; Pew Social Trends Staff, 2007).

Despite being generally less trusting of others, there is also surprising evidence that lower-class individuals appear to support policies or the status quo that go against their basic personal and group interests (Jost, Pelham, Sheldon, & Sullivan, 2003; Kay & Jost, 2003). One reason is that when faced with unfairness stemming from policies or the status quo that are disadvantageous to them, lower-class individuals attempt to restore their belief in the fairness of the system by rationalizing that those policies are justified and subsequently, support them (Kay & Jost, 2003; Jost et al., 2003). Nonetheless, we argue that this reasoning rests on the assumption that these individuals are relatively cognizant of the conflict and thus, engage in rationalization. While politically well-informed individuals certainly exist, evidence from research in political communication suggest that most voters tend to lack either the resources or motivation to acquire sufficient knowledge about political figures and the implications of their policies (Buchanan, 1991; Popkin, 1991). In addition, being more vigilant about other's intentions does not guarantee that lower-class individuals would be more accurate at perceiving those intentions, especially with imperfect knowledge. Therefore, we suggest that even as lower-

class individuals are motivated to determine the authenticity of a political figure's intentions or warmth, other psychological forces and motivations may conspire to make them support political figures and policies that do not align with their interests.

On the assumption that lower-class individuals are motivated to be cautious about a political figure's intentions, but do not always have sufficient knowledge about them, how might they attempt to determine the authenticity of a political figure's warmth? Evidence from models of persuasion and political communication have demonstrated that cues such as the credibility of the source of political messages can influence people's political judgments, especially when they lack the ability or motivation to acquire knowledge about a person or an issue (Druckman & Lupia, 2000; Iyengar & Valentino, 2000; McGuire, 1985; Petty & Cacioppo, 1984). Therefore, we suggest that the source of a warm message about a political figure—whether the message is communicated directly by the figure or by others—could serve as a cue for lower-class individuals to judge the authenticity of the warmth.

Recent work has demonstrated that in cross-status interactions, high-status and low-status individuals appear to be aware of stereotypes about each other's warmth and competence, and as a result, modulate their own appearance on these dimensions differently as part of impression management. In particular, whereas low-status individuals tend to present themselves as less warm but more competent in order to match their higher-status partners' perceived competence, high-status individuals tend to present themselves to low-status individuals as warm but incompetent in order to disconfirm stereotypes about their lack of warmth (Swencionis, Dupree, & Fiske, 2017; Swencionis & Fiske, 2016). This suggests that when exposed to a political figure's warmth that is communicated personally, lower-class individuals may be reminded of the stereotypes about political elites that lead them to interpret the warmth as disingenuous. On the other hand, as mentioned previously, even though lower-class individuals are generally less trusting of others, they appear to be less cautious about those related to them and are more likely to trust them (Fiske et al., 2012). This also aligns with evidence on group membership effects in persuasion such that individuals respond more favorably to information or arguments made by in-group than out-group members (Haslam, McGarty, & Turner, 1996; Mackie & Cooper, 1984; van Knippenberg, 1999). Therefore, these findings suggest that if a political figure's warmth is communicated by a lower-class in-group member, lower-class individuals may be less cautious and perceive the figure's warmth as more authentic.

Together, the above theory and reasoning sets up the two main hypotheses of our current investigation. Our first hypothesis is that when exposed to warmth communications about political figures that are conveyed personally by the figures, lower-class individuals would perceive the warmth as disingenuous and be less likely than upper-class individuals to trust and support the political figures. Our second hypothesis is that when exposed to warmth communications about political figures that are conveyed by others, specifically a lower-class in-group

member, lower-class individuals would perceive the warmth as authentic and be more likely than upper-class individuals to trust and support the figure.

THE PRESENT RESEARCH

In two experiments, we tested the influence of types of communication about political figures' warmth on lower-class and upper-class individuals' perceived trust and support for them. In Experiment 1, we examined how lower-class participants relative to upper-class participants would respond to displays of warmth by a political candidate in his own campaign ad. Participants viewed real campaign videos used during a gubernatorial election that presented the candidate as someone who is warm, competent, or hostile (to his political opposition). Given that the campaign ads involved the candidate directly promoting his own traits, we predicted that lower-class participants would perceive the candidate's warmth in this context as unauthentic and thus, report lower trust and support for the candidate than upper-class participants. Conversely, in the videos conveying the candidate's competence or hostility, which served as positive and negative controls respectively, we expected no such class difference.

In Experiment 2, we examined the effect of warmth of a bogus political figure conveyed by others on participants' trust and support by manipulating whether the warmth description was conveyed by a lower-class or an upper-class member. Manipulating the group membership of the communicators enables us to achieve two goals: First, it potentially demonstrates that in-group rather than out-group communicators can serve as a source cue to lower-class individuals that a political figure's warmth is authentic. Second, it also helps to rule out a potential alternative explanation that the hypothesized effect in Experiment 1 is simply driven by lower-class participants' greater distrust toward others rather than their consideration of the authenticity of the warmth communications. As lower-class individuals are more likely to trust in-group than out-group members (Fiske et al., 2012), we predicted that lower-class participants would find the political figure's warmth described by a lower-class in-group member to be more authentic and, as a result, report greater trust and support than upper-class participants for the political figure. In contrast, we expected no difference when the same warmth communication was expressed by an upper-class out-group member.

EXPERIMENT 1: SOCIAL CLASS AND WARM MESSAGING IN A GUBERNATORIAL ELECTION

The goal of this study was to investigate how personal communications of warmth by a political candidate influence social class differences in trust and support for the candidate. We examined the impact of warmth in the context of an actual political campaign of the former governor of Illinois, Pat Quinn, who ran for office

in the gubernatorial election in 2010. To isolate the effect of warmth, we tested this effect relative to two other traits—competence and hostility—which served as positive and negative controls respectively. To this end, we experimentally manipulated participants' exposure to actual campaign videos used by Governor Quinn that portrayed him as either warm, competent, or aggressive toward an opponent, and assessed how much participants would trust and support the governor.

METHOD

Participants

Eight hundred and forty participants (327 female, 513 male) from Amazon Mechanical Turk participated in the study. The sample size was determined based on recommendations that large sample sizes provide greater precision in estimating effects (Cumming, 2014). The mean age of participants in the sample was 31.40 (*SD* = 11.77). In terms of ethnicity, the sample consisted of 74.6% European American, 8.3% Asian American, 5.8% African American, 5.4% identified as other, 4.6% Latino/a, and 1.1% Native American. In terms of their social class backgrounds, 47.5% of the participants reported annual incomes of $50,000 or less, while 87.0% of the participants reported having attended at least some college as their highest level of education completed.

Procedure

The study was a 3 (candidate trait: warm vs. competent vs. hostile) × 2 (participant social class: lower vs. upper) quasi-experimental design. The study was completed online entirely. Participants were told at the start of the study that the researchers were interested in investigating the different responses political ads can elicit in people, and that they would be watching a political campaign video and then asked to make some evaluations. Immediately following the instructions, participants were randomly assigned to watch one of three real campaign videos of a U.S. politician running for a gubernatorial election. After which, participants were asked questions about the video, as well as to indicate how much they would trust and support the candidate portrayed in the video. Toward the end, participants were asked to report their social class and other demographic information, and were then finally debriefed.

Materials

Manipulation of Perceived Warmth. We manipulated the perceived traits of the candidate by randomly assigning participants to watch one of three real campaign videos of U.S. governor Patrick Quinn, the incumbent governor of Illinois (unknown to most participants) who ran in the 2010 gubernatorial elections. The videos portrayed Governor Quinn as either a *warm* governor (e.g., highlighting

his frequent visit and support for military families), a *competent* governor (e.g., describing his track record and commitment to fighting for jobs for people), or a *hostile* governor (e.g., accusing his opposing candidate, Bill Brady, of escaping taxes). Portrayals of competence and hostility served as positive and negative controls respectively. These videos were selected based on an earlier pilot test on a separate sample of undergraduate participants (n = 25), in which the videos were rated as independently portraying Governor Quinn as warm, competent, or hostile. To ensure that the participants in the current study perceived Governor Quinn in the warm video as higher in warmth than in the competent and hostile videos, we included manipulation check items toward the end of the study that asked participants to rate on a 7-point scale (1 = *not at all*, 7 = *very*), how warm, competent, and hostile they perceived Governor Quinn to be.

Behavioral Support. We assessed participants' overall behavioral support with the following three items: "If there is going to be an election for your governor tomorrow, how likely are you to vote for someone like Pat Quinn?"; "How likely are you to volunteer for the campaign of someone like Pat Quinn for governor?"; and "How likely are you to donate to the campaign of someone like Pat Quinn?" All three items were rated on a 7-point scale (1 = *very unlikely*, 7 = *very likely*). As these items assessing behavioral support were reliable (α = .82), we averaged them to form an overall score of behavioral support, with higher scores indicating greater overall support for governor Quinn (M = 3.27, SD = 1.44).

Trust. We also measured how much participants trusted Governor Quinn in response to the video, by asking them "How trustworthy do you view Pat Quinn to be?" The item was rated on a 7-point scale (1 = *not at all*, 7 = *extremely*; M = 4.29, SD = 1.50).

Social Class. To assess participants' social class, we used both measures of objective material resources and subjective perceptions of social class rank. Personal educational attainment and annual household income were used as indices of participants' objective social class (Kraus et al., 2009). Participants reported their educational attainment by choosing one of the following four categories: (1) less than high school education, (2) high school education, (3) college graduation, and (4) post-graduate degree. They also reported their annual income by choosing one of the following eight categories: (1) less than $15,000, (2) $15,001–$25,000, (3) $25,001–$35,000, (4) $35,001–$50,000, (5) $50,001–$75,000, (6) $75,001–$100,000, (7) $100,001–$150,000, and (8) greater than $150,000. As both education attainment and annual household income were correlated, $r(837) = .34$, $p < .001$, we standardized each index by computing their z-scores and then averaged the scores to form an objective social class index, with higher scores indicated higher objective social class.

Subjective social class rank was measured using the MacArthur Scale of Subjective Socioeconomic Status (Adler et al., 2000; Kraus et al., 2009). To indicate where they stand relative to others in their community in the Unites States, participants were asked to place an "X" on one of 10 rungs of a ladder that represented people with different levels of education, income, and occupation status. Each rung of the ladder was represented by a number from 1 to 10, with higher numbers indicating higher social class rank perception (M = 4.87, SD = 1.74). As in previous research,

FIGURE 1. The relationship between subjective social class at one standard deviation above and below the mean and support for Governor Quinn for each perceived trait of warmth, competence, and hostility. Error bars represent standard errors of the mean (Experiment 1).

the subjective social class index was correlated with objective social class, $r(838) = .29$, $p < .001$, but not perfectly, indicating their relatively independent nature (Adler et al., 2000; Kraus et al., 2009).

RESULTS

First, we determined the success of our manipulation of warmth perceptions by conducting a one-way ANOVA on participants' perceptions of Governor Quinn's warmth in response to the video they watched. The analysis revealed a significant effect of the video type on warmth perceptions, $F(2, 837) = 458.77$, $p < .001$. Post hoc tests of comparison between the three videos using Bonferroni correction revealed that Governor Quinn was perceived as significantly warmer in the video intended to portray his warmth ($M = 5.99$, $SD = 1.20$) than the video intended to portray his competence ($M = 4.79$, $SD = 1.41$), as well as the video intended to portray his hostility ($M = 2.59$, $SD = 1.41$). There was also an overall effect of video type on competence perceptions, $F(2, 837) = 32.54$, $p < .001$. Post hoc tests of comparison between all three videos using Bonferroni correction revealed that while participants did not perceive any difference in competence in response to the videos portraying Governor Quinn as warm ($M = 3.89$, $SD = 0.67$) and competent ($M = 3.82$, $SD = 0.65$), he was perceived as significantly less competent in the video that portrayed him as hostile ($M = 3.26$, $SD = 0.76$) compared to the other two videos. As our focus is on warmth perceptions, these findings indicate that the warm video was suc-

cessful in eliciting perceptions of warmth in participants relative to the competent and hostile videos.

As we reasoned that warmth that is communicated personally would appear as less authentic, we predicted that lower-class participants would report lower trust and support than upper-class participants for Governor Quinn. To test this hypothesis, we ran a linear regression analysis. We first created two sets of dummy coded variables of perceived trait, one comparing the effect of perceived warmth versus competence and the other comparing the effect of perceived warmth versus hostility. For each pair of dummy codes, perceived warmth was always the referent group and thus coded as "0", while the perceived competence and hostility were each coded as "1". We entered the two sets of dummy coded variables of candidate trait, participants' social class, as well as the interaction of each dummy coded variable with participants' social class, simultaneously into the regression model. We ran two separate analyses using this model on measures of behavioral support and trust and applied the Bonferroni correction to adjust for multiple comparisons from using two different measures of social class.

For behavioral support, the analysis first revealed a main effect of perceived trait, such that participants were, across the board, less likely to support Governor Quinn who displayed hostility rather than warmth, $b = -.94$, $t(836) = -8.08$, $p < .001$, 95% CI [-1.17, -.71]. On the other hand, participants across the board were equally likely to support Governor Quinn who displayed competence or warmth, $b = .06$, $t(836) = 0.49$, $p = .62$, 95% CI [-.17, .28]. Central to our hypothesis, the analysis revealed that the model that included the interaction terms was significant after adjusting for multiple comparison, $F(2, 834) = 5.10$, $p = .006$. When simple slopes were examined, we found that only warmth perceptions produced class differences, such that lower-class participants were less likely to support Governor Quinn who was portrayed as warm, $b = .17$, $t(834) = 3.74$, $p < .001$, 95% CI [.08, .26]. On the contrary, no class differences were observed when he was portrayed as competent, $b = .07$, $t(834) = 1.66$, $p = .10$, 95% CI [-.01, .16], or hostile, $b = -.04$, $t(834) = -.81$, $p = .42$, 95% CI [-.13, .05] (see Figure 1).

For reports on trust, participants across the board were less likely to trust Governor Quinn who displayed hostility compared to warmth, $b = -1.42$, $t(836) = -12.27$, $p < .001$, 95% CI [-1.64, -1.19], but were equally likely to trust Governor Quinn who displayed competence compared to warmth, $b = -.08$, $t(836) = -0.71$, $p = .48$, 95% CI [-.31, .14]. However, the model that included the interaction terms was nonsignificant, $F(2, 834) = 2.13$, $p = .12$, although examination of the simple slopes revealed patterns that aligned with that of behavioral support. Specifically, lower-class participants tended to report less trust toward Governor Quinn when he was portrayed as warm, $b = .09$, $t(834) = 1.98$, $p = .048$, 95% CI [.001, .18], but these reports did not differ when he was portrayed as competent, $b = -.01$, $t(834) = -.32$, $p = .75$, 95% CI [-.10, .07], or hostile, $b = -.03$, $t(834) = -.74$, $p = .46$, 95% CI [-.12, .06]. Overall, these findings assessed with subjective social class were consistent with our first hypothesis.

Interestingly, we did not find similar interaction effects in the model when participant social class was assessed with objective social class for both behavioral

support, $F(2, 833) = 0.19$, $p = .83$, and trust, $F(2, 832) = 0.07$, $p = .93$.[1] We speculate on some possible reasons for this in the General Discussion.

DISCUSSION

Results from Experiment 1 provided preliminary evidence that when a candidate communicates his warmth personally and appears as less authentic, lower-class individuals were less likely than their upper-class counterparts to trust and support the candidate. Nonetheless, we note that the obtained effect on trust was weaker than that of behavioral support, although the pattern of simple slopes for both outcomes were similar. We speculate that this could be due to the nature of election campaign ads, such that regardless of one's social class, people are generally aware of its self-promoting nature and differ less in how much they should trust a candidate who uses such political tropes.

Although we inferred that the lower-class participants were responding negatively to the perceived inauthenticity of the candidate's warmth, the findings do not completely rule out the possibility that these participants were simply being cautious rather than finding the candidate's warmth inauthentic. If lower-class individuals indeed pay closer attention to warmth, as we theorized, they should then respond favorably to warm messages that appear authentic. To test this idea, we conducted Experiment 2 to investigate whether warm messages about a political figure conveyed by a lower-class in-group member—a potentially reliable

1. To assess whether the knowledge of Pat Quinn as the governor of Illinois had any influence on our findings, we excluded participants who correctly identified the candidate in the video as the governor of Illinois ($n = 42$) and re-ran the main analyses. These new analyses produced a similar pattern of findings: For behavioral support, there was a main effect of perceived trait, such that participants were, across the board, less likely to support Governor Quinn who displayed hostility rather than warmth, $b = -.93$, $t(794) = -7.98$, $p < .001$, 95% CI [-1.16, -.70]. On the other hand, participants across the board were equally likely to support Governor Quinn who displayed competence or warmth, $b = .14$, $t(794) = 1.15$, $p = .25$, 95% CI [-.10, .36]. Consistent with the analysis with the full sample, the model that included the interaction terms was significant, $F(2, 792) = 4.92$, $p = .008$. Again, when simple slopes were examined, warmth perceptions produced class differences, such that lower-class participants were less likely to support Governor Quinn who was portrayed as warm, $b = .14$, $t(792) = 3.11$, $p = .002$, 95% CI [.05, .23], whereas there were no class differences when he was portrayed as competent, $b = .06$, $t(792) = 1.65$, $p = .11$, 95% CI [-.01, .17], or hostile, $b = -.05$, $t(792) = -0.99$, $p = .33$, 95% CI [-.14, .05].

For reports on trust, participants across the board were again less likely to trust Governor Quinn who displayed hostility compared to warmth, $b = -1.44$, $t(794) = -12.33$, $p < .001$, 95% CI [-1.67, -1.21], but were equally likely to trust Governor Quinn who displayed competence compared to warmth, $b = -.011$, $t(794) = -0.094$, $p = .93$, 95% CI [-.24, .22]. As in the analysis with the full sample, the model with the interaction terms was nonsignificant, $F(2, 792) = 1.56$, $p = .21$. Examination of the simple slopes revealed that lower-class participants tended to report less trust toward Governor Quinn when he was portrayed as warm, $b = .08$, $t(792) = 1.75$, $p = .081$, 95% CI [-.01, .17], while reports did not differ when he was portrayed as competent, $b = .04$, $t(792) = -0.77$, $p = .44$, 95% CI [-.06, .12], or hostile, $b = -.03$, $t(792) = -.73$, $p = .47$, 95% CI [-.12, .06].

As in the analyses with the full sample, we did not find interaction effects in the model when participant social class was assessed with objective social class for both behavioral support, $F(2, 791) = 0.46$, $p = .63$, and trust, $F(2, 791) = 0.19$, $p = .83$.

source to lower-class individuals—will increase lower-class participants' relative to upper-class participants' trust and support for the figure.

EXPERIMENT 2: SOCIAL CLASS, GROUP MEMBERSHIP, AND WARM MESSAGES

The goals of this experiment were to provide evidence that lower-class individuals relative to upper-class individuals would respond more favorably to warm communications that appear authentic, as well as to rule out the alternative explanation in Experiment 1 that the lower-class participants were simply being cautious rather than responding to the inauthenticity of the political figure's warmth. To achieve these goals, in this second experiment, we tested the persuasiveness of warmth communications to lower-class individuals relative to upper-class individuals, if they were communicated by an in-group member or out-group member. We randomly exposed participants to a description of a political figure as warm, delivered by either a lower-class or upper-class member. We expected that warmth communication by a lower-class member would be a reliable source cue to lower-class individuals that the warmth information is authentic. Therefore, we hypothesized that lower-class participants compared to upper-class participants would report greater trust and support for the political elite when his warmth was described by the lower-class member. On the other hand, we expected no differences in reported trust and support for the political elite when his warmth was described by the upper-class member.

METHOD

Participants

Seven hundred and ninety participants (354 female, 436 male) from Amazon Mechanical Turk took part in the study. As in Experiment 1, the sample size was determined based on recommendations that large sample sizes provide more precise estimates of effects. The mean age of the sample was 32.68 (SD = 12.21). The ethnic breakdown of the sample was 74.7% European American, 8.5% Asian American, 5.2% African American, 3.4% Latino/a, 1.4% Native American, and 6.8% identified as other. In terms of social class background, 43.9% of them reported their household income as $50,000 and below, while 89.7% of them reported having at least some college education.

Procedure

The study was a 2 (letter writer social class: lower-class member vs. upper-class member) × 2 (participant social class: lower-class vs. upper-class) quasi-experimental design. The study was completed online entirely. Participants were told the researchers were interested in their impressions of political figures based on what

American citizens say about them. They were instructed that they would be reading three letters written by three different individuals to Andrew Wright, a U.S. governor, and would later be asked to make some evaluations. Unbeknownst to participants, the letters, letter writers, and the governor were all made up. Participants all read three letters in total, one at a time and in the same order. The content of the letters that all participants read were the same: The first two were short congratulatory notes to the governor on his re-election. Only the third letter described the governor's warmth based on a personal encounter with Governor Wright at a hospital for cancer patients, where the letter writer observed his positive and warm interaction with the cancer patients and their families. Importantly, all three letter writers signed off at the end of their respective letters with their name and occupation, which was where their social class was manipulated. In the *lower-class member* condition, the occupations indicated by all of the letter writers were lower-class occupations, whereas in the *upper-class member* condition, the occupations indicated for all of the letter writers were all upper-class occupations. Participants were randomly assigned to one of the two conditions. After reading all the letters, participants indicated how much they would trust and support Governor Wright. Toward the end, participants reported their social class and other demographic information, and were then debriefed at the very end.

Materials

Manipulation of the Letter Writer's Social Class. The letter writer's social class was manipulated by indicating the occupation of the letter writers. In the lower-class member condition, the occupation of the first two letter writers were "an electrician" and a "firefighter" respectively, while the occupation of the third letter writer who wrote about the governor's warmth was a "United Autoworkers Union Member." In the upper-class member condition, the occupation of the first two letter writers were "a financial trader" and an "investment banker" respectively, while the occupation of the third letter writer who wrote about the governor's warmth was the "CEO of Diamond Foods and Distributors." To ensure that the occupations indicated elicited perceptions of the letter writer's social class, we included a manipulation check item toward the end of the study that asked participants to rate on a 7-point scale (1 = *low*, 7 = *high*), what they thought the socioeconomic status of the individuals who wrote the letters were (M = 4.99, SD = 1.62).

Perceived Warmth of Governor Wright. To ensure that the letter written to communicate the governor's warmth was indeed perceived as warm, we also asked participants to rate at the end, on a 7-point scale (1 = *not at all*, 7 = *very*), how warm they perceived Governor Wright to be after reading the letter (M = 5.78, SD = 1.18).

Behavioral Support. We assessed participants' behavioral support for Governor Wright using the three items as in Experiment 1. Again, as these items were reliable (α = .88), we averaged them to form an overall score of behavioral support, with higher scores indicating greater overall support for Governor Wright (M = 4.38, SD = 1.53).

Trust. Similar to Experiment 1, we measured how much participants trusted Governor Wright after reading the letters by asking them "How trustworthy do you think Andrew Wright is?" (M = 5.10, SD = 1.39).

Social Class. We assessed participants' objective and subjective social class rank (M = 5.08, SD = 1.67) using the same measures in Experiment 1. For the objective social class indices, both education attainment and annual household income were correlated, $r(797) = .26$, $p < .001$, they were standardized and then averaged to form an objective social class index, with higher scores indicating higher objective social class. Objective and subjective social class indices were once again correlated, $r(796) = .28$, $p < .001$, but not perfectly.

RESULTS

First, we determined the success of our manipulation of the social class of the letter writers by running an independent samples t-test comparing the perceived social class ratings of the lower-class member to the ratings of the upper-class member. Indeed, we found that the lower-class member (M = 3.79, SD = 1.11) was perceived as lower in social class than the upper-class member (M = 6.18, SD = 1.08), $t(797) = -30.87$, $p < .001$, suggesting that our manipulation was successful. Additionally, we tested whether the letter describing Governor Wright's warmth was indeed perceived as warm by running a one-sample t-test comparing ratings of his perceived warmth against 4, the midpoint of the rating scale. The test revealed that the perceived warmth ratings were significantly greater than 4 ($M_{\text{difference}} = 1.77$), $t(798) = 42.44$, $p < .001$, suggesting that the letter describing Governor Wright was successful at eliciting warm perceptions. We also assessed whether perceptions of Governor Wright's warmth differed by the social class of the letter writers by comparing the warmth ratings of Governor Wright in response to the letter written by the lower-class member and the upper-class member. An independent samples t-test revealed that participants, regardless of their own social class, perceived governor Wright are more warm when he was described by the lower-class member (M = 5.73, SD = 0.98) than by the upper-class member (M = 5.35, SD = 1.19), $t(797) = 4.89$, $p < .001$.

To test our key hypothesis that lower-class participants, compared to upper-class participants, are more likely to trust and support a politician described as warm by an in-group member, but not by an out-group member, we conducted two parallel hierarchical linear regressions on behavioral support and trust, with the letter writer's social class (dummy coded as "0" for lower-class member and "1" for upper-class member), social class of participants assessed at 1 SD above and below the mean, and their interaction term entered as predictors. As in Experiment 1, we applied the Bonferroni correction to adjust for multiple comparisons using two different measures of social class.

First, with behavioral support, the analysis produced a significant main effect of the letter writer's social class, such that participants were more likely to support Governor Wright when his warmth was described by a lower-class member than upper-class member, b = -.48, $t(787) = -4.41$, $p < .001$, 95% CI [-.69, -.26]. Central

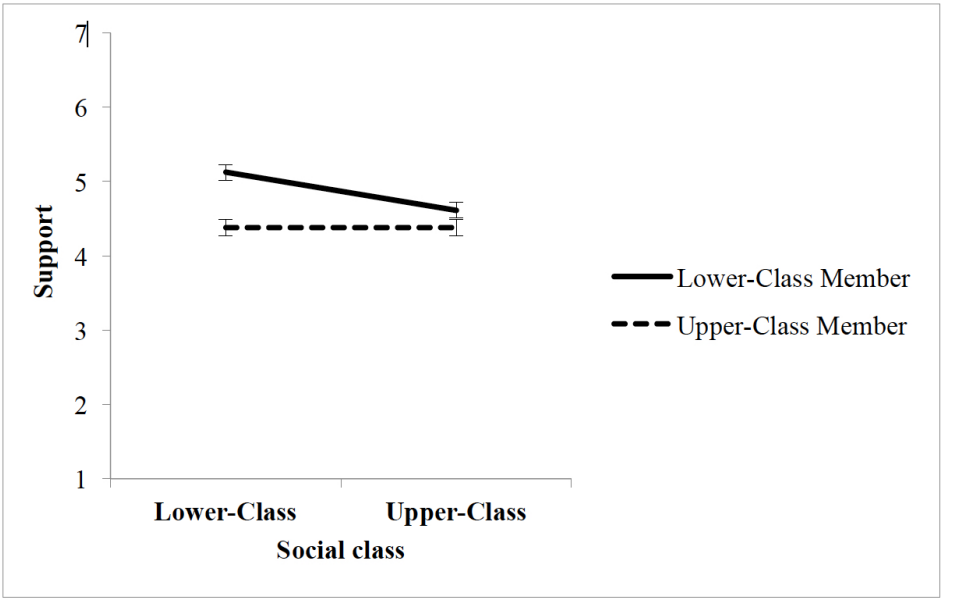

FIGURE 2. The relationship between objective social class at one standard deviation above and below the mean and support for Governor Wright based on description by a lower-class versus upper-class member. Error bars represent standard errors of the mean (Experiment 2).

to our hypothesis, the analysis yielded an interaction between the social class of the letter writer and participants' objective social class, b = .28, $t(786)$ = 2.04, p = .04, 95% CI [.01, .54], although this interaction effect did not pass the significance threshold when adjusted for multiple comparisons. Simple slopes analyses revealed that when Governor Wright's warmth was described by a lower-class member, class differences emerged such that lower-class participants were significantly more likely to support him than upper-class participants, b = -.30, $t(786)$ = -2.01, p = .045, 95% CI [-.60, -.01], whereas no class difference was found for the upper-class member, b = -.03, $t(786)$ = -0.38, p = .71, 95% CI [-.16, .11] (see Figure 2).

The same patterns of results were obtained for trust. Specifically, there was a main effect of the social class of the letter writer, such that participants were more likely to trust Governor Wright when his warmth was described by a lower-class member than upper-class member, b = -.48, $t(787)$ = -4.90, p < .001, 95% CI [-.67, -.29]. Once again, central to our hypothesis, a significant interaction between the letter writer's social class and participants' social class emerged, b = .31, $t(786)$ = 2.51, p = .01, 95% CI [.07, .55]. Simple slopes analyses, again, showed class differences when Governor Wright's warmth was described by a lower-class member, such that lower-class participants reported greater trust toward Governor Wright than upper-class participants, b = -.40, $t(786)$ = -2.92, p = .004, 95% CI [-.67, -.13], while no class difference was obtained when the description was from an upper-class member, b = -.09, $t(786)$ = -1.47, p = .14, 95% CI [-.21, .03] (see Figure 3). These results support our second hypothesis.

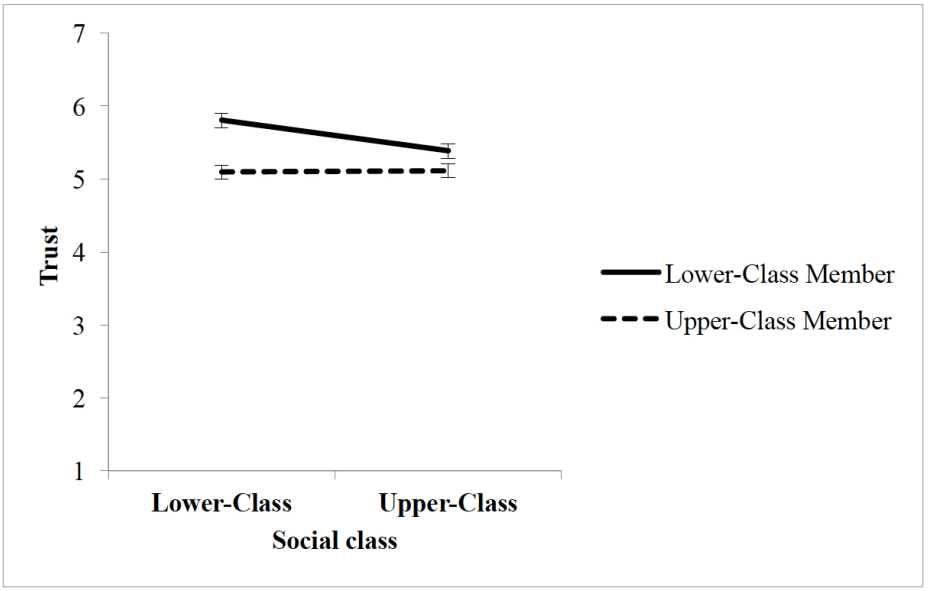

FIGURE 3. The relationship between objective social class at one standard deviation above and below the mean and trust in Governor Wright based on description by a lower-class versus upper-class member. Error bars represent standard errors of the mean (Experiment 2).

We did not observe similar interaction effects with subjective social class for both behavioral support, b = -.06, $t(786)$ = -1.05, p = .29, 95% CI [-.17, .05], and trust, b = .02, $t(786)$ = 0.48, p = .63, 95% CI [-.08, .13]. We speculate on this inconsistency in the General Discussion.

DISCUSSION

Results in Experiment 2 aligned with our hypothesis by showing that relative to upper-class participants, lower-class participants reported greater trust and support for a political figure described as warm by a lower-class member, while no differences in these judgments were elicited by an upper-class member. It is worth noting that the effect on behavioral support was weaker compared to the effect on trust, which is consistent with evidence in the persuasion literature that behaviors tend to be harder to elicit than attitudes and perceptions (Ajzen & Fishbein, 1980; Albarracín et al., 2003). Nevertheless, these findings provide evidence that in-group sources could serve as a cue for lower-class individuals to determine if a warmth communication is authentic. As well, the findings support the overall idea that lower-class individuals, compared to upper-class individuals, are more attuned to warmth communications, responding more favorably to a political figure's warmth only when it appears to be authentic.

GENERAL DISCUSSION

As economic inequality escalates and class divisions accentuate, cross-class interactions are increasingly encumbered with tension, suspicion, and eventually, disengagement. Attempts at breaching these barriers by politicians are abound in the political sphere, particularly in persuasive messages calling for trust, and success in this has become increasingly central in shaping political outcomes in recent years (c.f., Jost, 2017; Jost, Pelham, Sheldon, & Sullivan, 2003). The present research drew on the social cognitive theory of social class and proposed that given lower-class individuals' fundamental orientation toward interdependence and communal goals, in contrast to upper-class individuals' orientation toward independence and personal goals, lower-class individuals should be more attuned to signals of interpersonal warmth and be more likely to base their judgments of a person on these signals than upper-class individuals. On this basis, we argued that the nature of warm signals in political communications—whether appearing authentic or not—will shape social class differences in the trust and support of a political figure.

We derived two hypotheses to test our claim. First, as warmth that is conveyed personally cues self-promotion motives and inauthenticity, we hypothesized that lower-class participants would be less likely than upper-class participants to trust and support a political figure whose warmth is communicated personally through a campaign ad (Experiment 1). Second, as warmth that is promoted by an in-group person tends to be more trusted and cues authenticity, we hypothesized that lower-class participants would be more likely than upper-class participants to trust and support a political figure's warmth that is communicated by a lower-class in-group member (Experiment 2). We tested and found preliminary support for these hypotheses in two experiments. Experiment 1 showed that when exposed to a warm message in the form of a campaign video that briefly illustrated a political candidate's visit to a military family, lower-class participants reported less trust and support for the candidate than upper-class participants. Importantly, this class difference was not observed for participants exposed to a similar campaign video that briefly illustrated the same candidate's competence or hostility to his opponents, demonstrating that the class difference is unique to warmth perceptions. In Experiment 2, we showed that when exposed to a warm message about a political figure in the form of a letter written by an individual identified as a lower-class member (i.e., a union worker), lower-class participants reported greater trust and support for the politician than upper-class participants. This effect was not observed when the warm message was written by an individual identified as an upper-class member (i.e., a CEO). Together, these studies illustrate how social class shapes differences in response to warmth, and highlights perceived authenticity as an important caveat to eliciting trust and support from lower-class individuals through warmth communication.

The results in Experiment 1 appear to align with the discounting principle in social cognition (Kelley, 1972; Wilson, 2002), which posits that when people are aware of the situational reason for a person's behavior, being more likely to dis-

count the likelihood that the behavior was driven by the person's intrinsic quality or trait. In our case, it is possible that lower-class individuals, who are more attuned to contextual cues and the intentions of others (Grossmann & Varnum, 2011; Kraus, Piff, & Keltner, 2009), were more aware than their upper-class counterparts of the context of the candidate's warmth communication—an election campaign—leading them to discount the likelihood that he was intrinsically warm. As such, they were more likely than their upper-class counterparts to perceive his warmth as inauthentic and thus, became less willing to trust and support him.

Nonetheless, we acknowledge other explanations that could account for our findings. One possibility is that lower-class participants in Experiment 1 were simply showing more caution than upper-class individuals toward the warm message rather than actually evaluating the authenticity of the warmth signals in context. If this were the case, we would expect lower-class individuals to be less trusting of *all* types of warm signals. However, results from Experiment 2 ruled out this possibility by showing that when a political figure's warmth was communicated by a lower-class member, lower-class participants reported greater trust and support than upper-class participants for the political figure, but not when the communication was by an upper-class member. This provides evidence that lower-class individuals do interpret warmth signals in context. Another possibility is that the observed class differences in response to the warm depiction of the governor could have been driven by the greater relevance of the video content (i.e., supporting military families, who were seen as lower-class members) to lower-class participants than to upper-class participants. As the current study did not assess or manipulate perceived self-relevance of the video content to participants, we cannot completely rule out this possibility. We encourage future work to elucidate these explanations by manipulating both the warmth of the political figure and the warmth of the message content in a single design and observing their influence on the trust and support from lower-class relative to upper-class individuals.

Experiment 2 achieved two goals: First, it enabled us to rule out general distrust as a potential explanation for the results in Experiment 1. Second, it provided evidence that having a lower-class in-group member as a communicator of a political figure's warmth can serve as a cue to lower-class individuals that the warmth is authentic, making them respond more favorably to the figure. Although this finding could be interpreted as a group membership effect such that in-group members are more persuasive than out-group members (Haslam, McGarty, & Turner, 1996; Mackie & Cooper, 1984; van Knippenberg, 1999), we note that in the current study, the upper-class participants were not more persuaded by the in-group upper-class member. One reason for this may be that as the Amazon Mechanical Turk sample is non-representative and generally lower in social class, the relatively upper-class participants in the sample may not have identified a CEO of a company as an in-group member. To further elucidate the group membership effect, we suggest that future replications of this work should use a more representative sample with a wider range of social class, as well as assess participants' perceived similarity to the letter writers to examine if this mediates the effect of the letter writer's social class on trustworthiness and support.

Another possibility is that instead of a group membership effect, warmth communications via a lower-class member is generally perceived as more authentic than via an upper-class individual. As people tend to hold stereotypes that high-status individuals lack warmth and are unable to connect with lower-status individuals (e.g., Fiske et al., 2002; Kervyn, Judd, & Yzerbyt, 2009; Swencionis et al., 2017), being portrayed as warm by a lower-class member violates those expectations and elicits the perception that the politician must be intrinsically warm, which is consistent with the augmentation principle (Kelley, 1971). In line with this idea, we did find that participants, regardless of social class, perceived Governor Wright as warmer when he was described by the lower-class member than by the upper-class member. Furthermore, we also observed a consistent main effect of the letter writer's social class on trust and behavior, such that Governor Wright received greater trust and support when described by a lower-class rather than an upper-class member. Nonetheless, future replication studies would be needed to ascertain or rule out the group membership effect more conclusively before we can determine which is a more probable explanation for our effects.

Notably, in both experiments, we did not observe a consistent effect of both social class measures: In Experiment 1, the hypothesized effects were observed only with subjective but not objective social class. Conversely, in Experiment 2, the hypothesized effects were obtained only with objective but not subjective social class. We speculate some potential reasons for these inconsistencies: First, the correlations between the objective and subjective social class measures were relatively weak in both of our experiments (Experiment 1: $r[838] = .29$, $p < .001$; Experiment 2: $r[796] = .28$, $p < .001$), compared to the typical range observed in empirical studies using national and university samples (e.g., subjective social class significantly correlates with education at $r = .13$ and $r = .34$ for national and university samples respectively, and with income at $r = .39$ and $r = .59$ for national and university samples respectively; Kraus et al., 2009). In general, the weak correlations obtained in both of our experiments should not be surprising, given that objective and subjective social class measures are often distinguishable constructs that reflect different psychological processes for construing one's social class. Nevertheless, we also speculate that these weaker than average associations may have been unique to the Mechanical Turk samples, which are typically lower in social class than the larger U.S. population, as mentioned earlier. As such, the reported income and education in these samples had less variation, which could be why in Experiment 1, the objective social class measure did not detect any class differences. In contrast, beyond crude income and education measures, the subjective social class measure entailed psychological perceptions of financial security and deprivation relative to others, which contributed to additional variation in the measure and was more likely to produce class differences.

Second, the distinct processes in construing one's social class reflected by objective and subjective social class also suggest that the effects of each social class measure can play out differently depending on which process is more relevant in a particular context. Critically, Experiment 2 differed from Experiment 1 in the overall design, such that it involved manipulating the occupation of a letter writer

to elicit participants' perceptions of their social class group membership. As identifying with the letter writer's social class based on occupation was key to the effects in Experiment 2, we reason that one's objective social class, which typically involves the consideration of one's occupation (Oakes & Rossi, 2003) was more relevant than subjective social class rank in this case, and thus, was more likely to produce differences. Nonetheless, all of these explanations are still speculative and future work could do well by testing the present hypotheses in future experiments using more similar designs across studies, as well as more representative samples.

Besides providing preliminary support for our theory that lower-class individuals are more attuned to warmth signals than upper-class individuals, the present findings also supplement the existing work on how such cross-class interactions may be better navigated (Côté, Kraus, Carpenter, Piff, Beermann, & Keltner, 2017). Specifically, if higher social class individuals like politicians want to signal warmth authentically in order to connect and engage with lower status individuals, direct self-promotion is unlikely to work. Instead, having a communicator perceived as similar or an in-group member speak for the politician's warmth will more likely elicit lower-class individuals' trust and support for the politician. Nonetheless, we believe that relying on the communicator's similarity or group membership is just one of many ways of signaling authentic warmth, and future research could examine other effective ways of portraying warmth authentically.

Our findings also suggest that the ability to communicate warmth toward lower-class individuals effectively via political candidates and their policies may also be helpful in reducing political alienation in lower-class individuals, who may hold strong beliefs that politicians do not serve lower-class individuals' interests. Specifically, our results suggest that framing the goals of political figures and their policies as helping and not harming lower-class individuals, as well as communicating these goals and intentions reliably (e.g., via trustworthy sources), could be one viable way to gain trust, reduce political alienation, and increase the political participation of lower-class individuals more effectively. Besides political participation, communications and policy researchers could also extend on these findings and examine various ways of framing and communicating warm messages reliably to lower-class individuals in promoting other important behaviors that would improve their overall life circumstance and well-being (e.g., improving their health, financial situation, etc.).

The current findings also motivate other interesting questions that could be pursued in future. In the present work, we examined lower-class individuals' relative to upper-class individuals' response to warmth signals, conceived of as whether their intentions are helpful or harmful (Fiske et al., 2007). Nonetheless, other research has sought to distinguish different types of warmth using a circumplex model represented by the dimensions of benevolence and power. In this model, warmth is synonymous to benevolence and can be differentiated in the form of sociability and likeability, which relate to views of a group as communal, or in the form of trustworthiness and cooperativeness, which relate to perceptions of the group as being right or wrong (Leach, Ellemers, & Barreto, 2007). As such, future research could examine whether lower-class individuals' attunement to warmth

signals relative to upper-class individuals pertains to both types of warmth defined in the circumplex model, or only to one type.

Similarly, specific to the political domain, it might also be worthwhile to distinguish perceived warmth in terms of the helpful or harmful intent of the political figure versus the helpful or harmful intent of the policies that are advocated (e.g., whether reducing healthcare and education costs or lowering taxes help or harm lower-class individuals). In other words, are lower-class individuals more responsive than upper-class individuals to both the warm intent of the person and the policies that reflect intention to help, or do the differences only lie with perceptions of interpersonal warmth of the person? Finally, with mounting dissatisfaction of lower-class individuals with the political system and status quo as a result of rising income inequality in America, might the interpersonal warmth of a politician drive stronger class differences in voting preferences when perceptions of inequality are high rather than low? These are potentially important questions to answer as academics, political pundits, and politicians attempt to understand and predict how class divisions will shape voting behavior in future elections.

Some general limitations of the present research are worth noting. First, although in Experiment 1 we took the lack of class differences in the competence condition as evidence that lower-class individuals were specifically more attuned than upper-class individuals to warmth signals and not competence signals, the manipulation checks revealed that the competent video and warm video did not produce differences in perceived competence. In fact, the competence rating in the competent video was just below the midpoint of the scale, suggesting that the video may not have been as effective in signaling competence. Future work could look deeper into distinguishing the effects of warmth and competence by simultaneously manipulating the level of both traits. Second, as mentioned earlier, samples from Amazon Mechanical Turk, which is largely a non-representative sample of the U.S., were used exclusively in both experiments. Furthermore, the uniquely drawn sample from the U.S. may imply that these effects are unique to the U.S. rather than being a general phenomenon across cultures.

Third, although an important aspect of our central argument is that the perceived authenticity of warmth communications matter for whether lower-class individuals are going to respond favorably to the political figure's warmth, we did not directly assess participants' perception of the authenticity of the figure's warmth in both experiments. To some extent, given that trust can typically be inferred from perceived authenticity (Fiske et al., 2007), we believe that effects on the trust outcome measure is indicative of participants' perception of the authenticity of the warmth that was communicated. Nonetheless, having a direct measure of perceived authenticity of the political figure's warmth would have helped to provide a clearer interpretation and support for our hypotheses. Future work could replicate this design and include a direct assessment of how authentic participants found the political figure who displayed warmth to be, and then test if these perceptions of authenticity mediate the effects of social class on response to warmth. Alternatively, future work could also directly manipulate the authenticity of a political figure's warmth, for instance by exposing participants to either congruent

information about a political figure appearing warm in both public and private contexts (i.e., authentic warmth) or conflicting information about a political appearing warm in a public but not in a private context (i.e., inauthentic warmth), and then assessing their trust and support for the figure.

A final limitation is that it is unclear from our findings whether the effect of warmth on voting preference exists above and beyond partisanship, and that the present experiments were not designed to tease apart both of these effects. We had intentionally excluded party information of the candidates in both experiments with the goal of illustrating the sole influence of perceived interpersonal warmth on voting preference. Nonetheless, there is evidence in political psychology that the traits of politicians are intrinsically tied to the issues "owned" by the party they belong to (Hayes, 2005). For instance, most Americans hold beliefs that Republicans are stronger and more moral leaders, whereas Democrats are more compassionate and empathic. Therefore, it is possible that the class differences obtained in our current studies still relate to party identification (i.e., lower-class individuals identify more as Democrat) rather than solely perceptions of interpersonal warmth. Future studies would do well to tease apart both of these factors, by manipulating the candidate's party affiliation on top of warmth displays.

Although cross-class interaction and communication can be complex, the current research sought to provide a theory to explain class differences in person and intergroup perception, and further our understanding in cross-class interaction in important domains such as in the political sphere. Equally importantly, given rising economic inequality in the U.S. that will inevitably exacerbate intergroup tension, we hope the present work provides clues for researchers to explore further ways to promote and facilitate cross-class interactions to mitigate the class divide.

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